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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/422,539	10/21/1999	DING-KAI CHEN	10981786-1	5676
22879	7590	11/12/2004	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			KENDALL, CHUCK O	
			ART UNIT	PAPER NUMBER
			2122	

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/422,539

Applicant(s)

CHEN ET AL.

Examiner

Chuck Kendall

Art Unit

2122

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 19 August 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See continuation sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, ~~the proposed amendment(s)~~ a) ☐ will not be entered or b) ☒ will be entered ~~and an explanation of how the new or amended claims would be rejected is provided below or appended.~~

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: 59 - 63.

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 23-58.Claim(s) withdrawn from consideration: 1-22.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

Advisory Action

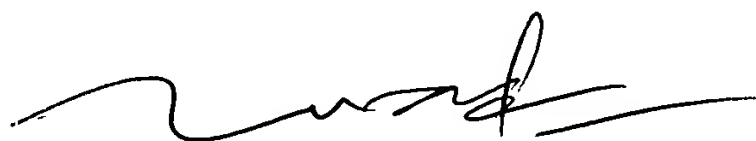
Argument (1), Regarding Applicant's argument on page 11 of response dated 08/19/2004, that Grove doesn't disclose " using the one or more unused bits to encode information without defining new instructions of opcode", or " communicating the information to the post-compile-time software application for use by the post-compile-time software application".

Response (1), Responding Examiner believes that Grove does in fact disclose using the one or more unused bits to encode information as well as communication the information to the post compile time software. In column 3: 60 – 65, Grove discloses, " the present invention does not require additional disk space or memory storage to execute efficiently. Instead, the present invention uses one or more of the unused bits in a given instruction to address the additional registers" (Emphasis added). As seen defining new instructions would require defining more storage and/or disk space and Grove specifically discloses not requiring allocating more space or storage and hence not needing to define new instructions instead using the unused bits. Examiner believes this to be equivalent to Applicant's limitation as discloses above.

Argument (2), Regarding Applicant's argument that Grove doesn't disclose communicating the information to post-compile time software application, Examiner disagrees. Applicant asserts in his argument on page 23 of Applicant's response, that the LUT which Examiner has interpreted to be Applicant post compile time software is actually used during the pendency of compilation and not during post-compile time compilation as argued by Examiner.

Response (2), Examiner believes that the LUT is in fact a post-compile time component. In Col. 9: 55 – 65, Grove discloses “ The LUT is used by a decoder on the target processor to recognize any new or modified instructions provided in a target executable program.” (Emphasis added). Also in 13: 40 – 50, shows the backend 812 of the compiler which allocates registers to the intermediate instructions (already compiled object code) utilizing the LUT to replace poisoned registers. As noted the LUT contains executable instructions and is used during post-compilation. Compilation by definition translates source code into object code (intermediate instructions), so by definition the executable instructions are regarded as post-compile time instructions.

Argument (3), Regarding Applicant's argument on pages 27 – 29 of Applicant's response, that claims 59 – 63 doesn't disclose, “find unused bits in a NOP instruction in one of the blocks of code, and to encode information as a bit vector in the unused bits...”, Examiner has reviewed Applicant's comments and hereby withdraws the rejections of claims 59 – 63, and places claims 59 – 63 in condition for allowance.



TUAN DAM  
SUPERVISORY PATENT EXAMINER